

## STATEMENT OF CONSIDERATIONS

REQUEST BY UOP LLC FOR AN ADVANCE WAIVER OF PATENT RIGHTS  
UNDER DOE COOPERATIVE AGREEMENT NO. DE-FC36-04GO14013  
ENTITLED "DISCOVERY OF NOVEL COMPLEX METAL HYDRIDES FOR  
HYDROGEN STORAGE THROUGH MOLECULAR MODELING"; W(A)-04-029;  
CH-1196

As set out in the attached waiver petition and in subsequent discussions with DOE Patent Counsel, UOP LLC (UOP) has requested an advance waiver of domestic and foreign patent rights for all subject inventions made under the above-identified cooperative agreement by its employees and its subcontractors' employees, regardless of tier, except inventions made by subcontractors eligible to retain title to inventions pursuant to P.L. 96-517, as amended, and National Laboratories. UOP is leading a multiple phase teaming arrangement including the Ford Motor Company and various other industrial and academic participants.

Referring to item 2 in UOP's waiver petition, the purpose of this agreement encompasses the discovery and identification of complex metal hydrides for hydrogen storage which contain 6 percent or more of hydrogen and can reversibly desorb hydrogen between -40 and 90°C. The work under the agreement will combine molecular modeling with high throughput combinational material synthesis, testing and characterization, materials scale-up, and system engineering studies to produce prototype commercializable hydrogen storage systems.

The work under the agreement is expected to take place over a period of about three years at a total cost of \$4,985,618. UOP is obligated to cost share \$2,985,618, or about 60 percent of the total cost of the project.

In view of the cost sharing and other equities between UOP and its subcontractors, it is anticipated that the parties will develop an appropriate allocation of patent rights among the participants to facilitate the expeditious development of the technology forming the subject matter of the agreement. Accordingly, DOE will waive title to all subject inventions made by UOP's employees and its subcontractors' employees, regardless of tier, except inventions made by subcontractors eligible to retain title pursuant to P.L. 96-517, as amended, or National Laboratories, to UOP or its subcontractors, as mutually agreed by the parties. Except as otherwise approved in writing by DOE Patent Counsel, a party's acceptance of a subcontract under this agreement, at any tier, shall constitute UOP's certification that it has provided that party with a copy of this Statement of Considerations and that party's notice to DOE that it accepts the terms and conditions of this advance waiver. Additionally, subcontractors who receive title under this waiver shall notify DOE Patent Counsel in writing of such disposition of patent rights.

Referring to items 7-9 of UOP's waiver petition, UOP has made a substantial investment in developing equipment and expertise in combinational chemistry. This, coupled with UOP's cost sharing, clearly demonstrates the likelihood that UOP will continue development and commercialization of the results of the agreement.

This advance waiver of the Government's rights in inventions is subject to the usual advance patent waiver and background data licensing provisions, and the government license, march-in rights, and preference for U.S. industry provisions set out in 35 U.S.C. 202-204. The

advanced patent waiver also includes the attached U.S. Competitiveness clause (paragraph t) which requires products embodying any waived invention or produced through the use of any waived invention be manufactured substantially in the United States unless the participant can show to the satisfaction of DOE that it is not commercially feasible to do so. The contractor further agrees to make the above condition binding on any assignee, licensee or other entity acquiring rights to any waived inventions, including subsequent assignees or licensees. Should be the Contractor or other such entity receiving right in any waived invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by DOE.

Referring to item 10 of the waiver petition, there is currently no significant market for metal hydride based hydrogen storage systems. Thus, no adverse effects on competition are anticipated by UOP's efforts to develop this emerging technology.

Considering the foregoing, it is believed that granting this waiver will provide Petitioner with the necessary incentive to invest its resources in the commercialization of the results of the agreement in a fashion which will make the technology available to the public in the shortest practicable time. Therefore, upon evaluation of the waiver petition and in view of the objectives and considerations set forth in 10 CFR Part 784, all of which have been considered, it is recommended that the requested waiver be granted.



Thomas G. Anderson  
Assistant Chief Counsel  
Intellectual Property Law Division

Date: 10 - 4 - 04

Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted. This waiver will not apply to any modification or extension of the cooperative agreement, where through such modification or extension, the purpose, scope or cost of the cooperative agreement has been substantially altered.

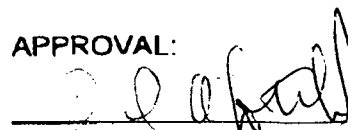
CONCURRENCE:



Steven G. Chalk, Director  
Office of Hydrogen, Fuel Cells and  
Infrastructure Technologies Program  
EE-2H

Date: 11/16/04

APPROVAL:



Paul A. Gottlieb  
Assistant General Counsel for Technology  
Transfer and Intellectual Property, GC-62

Date: 11-26-04

**(t) U. S. COMPETITIVENESS**

The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. In the event the DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by the DOE.